

Remarks

Claims 1, 2, 7-12, 17-19 and 25 are pending and are under consideration.

There are no allowed claims.

Claims 1, 2, 7-12, 17-19 and 25 are again rejected under 35 USC 103(a) as being unpatentable over Patel, et al., U.S. Pat. No. 5,348,736 in view of Mor, et al., U.S. Pat. No. 6,146,757.

Claims 1, 2, 10, 11 and 17-19 remain rejected as substantially set forth in the non-final Action of July 24, 2006, section 5.

Claims 7-9, 12 and 25 remain rejected as substantially set forth in the non-final Action of January 10, 2007.

Also discussed as relevant art are the UNILIN data sheet ("UNILIN Alcohols", 1985) and the UNITHOX data sheet (UNITHOX Ethoxylated Alcohols, 1996), both of record.

Applicants respectfully rebut these rejections.

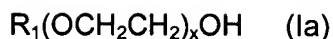
As seen in the Amendment After Final filed Sept. 29, 2005, present independent claim 1 reads:

1. A wettable polyolefin fiber or filament, comprising a melt blend

which comprises

(a) a polyolefin; and

(b) at least one compound of the formula (Ia)



where x is 2 or 3 and

R₁ is a straight or branched chain alkyl of 28, 30 or 32 carbon atoms.

The compounds of formula (Ia) are alkoxyated alkyl alcohols. The present claims require that the alkoxyated alkyl alcohols are melt blended with the polyolefin.

All present claims are argued together.

Mor teaches wettable fibers or filaments comprising a thermoplastic polymer having incorporated therein a first wetting agent and a second wetting agent. The polymer is preferably an olefin polymer. The first wetting agent is at least one nonionic alkoxyated alkylphenol. The second wetting agent is at least one compound selected from the group consisting of an alkoxyated fatty alcohol and a polyoxyalkylene modified organosilicone polymer, col. 5, lines 53-64.

The second wetting agent of Mor, the alkoxyated fatty alcohol, has an alkyl group of from 8 to 22 carbon atoms and on average about 1 to about 100 moles of ethylene oxide. The number of moles of ethylene oxide are preferably from about 2 to about 10 moles and most preferably from about 3 to about 6 moles, col. 6, lines 32-39.

Patel is aimed at liquid fiber treating and skin treating compositions, for example shampoos, hair conditioners, hair setting compositions, anti-dandruff compositions, fabric softening compositions, antistatic compositions, detergents, skin cleansers, skin lotions and sunscreens (Abstract). Fiber and fabric softeners are mentioned in col. 4, lines 57-58. Fabric detergents are mentioned in col. 13, lines 45-55.

Patel fails to teach that the fiber or filament comprises a polyolefin. Patel fails to teach that the "treating compositions" are incorporated into a fiber by melt blending. See page 4, line 4 of the Action and the paragraph bridging pages 3 and 4 of the Action.

Patel is aimed at home and personal care formulations that are applied to fabrics, hair or skin. Mor is aimed at wettable polyolefin fibers to be used in for example disposable articles such as diapers. The fibers of Mor are "melt blended" or "extrusion compounded", thus incorporating the additives, Example 1, col. 16. The present invention is in the same field as Mor. Patel is aimed at a totally different field.

Applicants submit therefore that Mor and Patel are aimed at disparate arts and are not properly combined.

The limitations of Mor do not meet the present claims. The present claims require that the alkyl group of formula (Ia) contain 28, 30 or 32 carbon atoms. The corresponding alkyl group of Mor has from 8 to 22 carbon atoms (col. 6, line 32).

Patel teaches the use of UNILIN alcohols of from 18 to 54 carbon atoms, col. 3, line 40. Patel also teaches the use of the corresponding alkoxyated alcohols. The alkoxyated alcohols contain up to about 20 ethoxy groups, for example from about 10 to 20 ethoxy groups, col. 3, lines 55-57. Preferred UNILIN's are UNILIN 425 and 550 as well as UNILIN 325 and 350, col. 3, line 64 through col. 4, line 1.

Patel also teaches specifically that UNITHOX 550, an ethoxylated UNILIN 550, may be employed, col. 4, lines 17-20.

The UNILIN data sheet displays UNILIN 425 and UNILIN 425 ethoxylates. Disclosed are ethoxylates with 1, 2, 4, 6, 10, 14 and 16 ethoxy groups. Specifically disclosed is the 50% ethoxylate which has 10 ethoxy groups.

The Examiner alleges that as the number of ethoxy groups of the derivative of UNILIN 425 may contain 2 monomers of ethoxy groups, that this derivative anticipates the claimed invention, page 6, lines 2-5 of the Action.

The compounds of present formula (Ia) are UNITHOX 420, the 2 mole ethoxylate of UNILIN 425, see the UNITHOX data sheet and the UNILIN data sheet.

However, to arrive at UNITHOX 420 from the combined disclosures of Mor and Patel (and the UNILIN data sheet) is hindsight analysis. From this combination, which particular UNITHOX would the skilled artisan be directed to employ? Patel teaches derivatives of UNILIN 425, 550, 325 and 350. The number of ethoxy groups of Patel is broad and may be up to 20 or from 10 to 20. The UNILIN data sheet discloses from 1 to 16 ethoxy groups. Mor teaches alkoxylated alcohols with from 1 to 100 or from 3 to 6 ethoxy groups.

Applicants respectfully submit that one could not arrive at UNITHOX 420 from this combination of art. The disclosures are too generic. There is no suggestion to arrive at UNITHOX 420 from this combination. The Examiner relies on the multiple recitation of UNILIN 425 in Patel and the disclosure of the UNILIN data sheet showing 1, 2 or 4 (also 6, 10, 14 and 16) monomers of ethylene oxide.

Those skilled in the art could not have arrived at the present invention from the combined disclosure of Mor and Patel (and the UNILIN data sheet).

Patel does specifically mention UNITHOX 550, col. 4, lines 17-18. Applicants submit that even though Mor and Patel are not properly combined, that to show unexpected results over this combination, the comparison of UNITHOX 550 to present UNITHOX 420 is the only fair comparison. These test results are in the second Gande Declaration filed May 7, 2007. In this Declaration, the two ethoxylated alcohols are tested for hydrophilicity in polypropylene nonwoven webs. Hydrophilicity is measured by observing the Liquid Absorption Capacity (LAC) of the fabrics. The web with 3% UNITHOX 550 displayed a LAC of 30%. The inventive web containing 3% of UNITHOX 420 displayed a LAC of 74%.

The present results are unexpected based on the combined disclosures of Mor and Patel.

The Examiner alleges on page 7 of the Action that Applicants have not claimed water absorption or wettability, or a measurement associated with water absorption or wettability, or a structure or composition to which water absorption or wettability may be attributed. Therefore the water absorption and wettability characteristics appear to be outside the scope of the claimed invention.

Applicants submit that present claim 1 is fully patentable. Outstanding wettability is attributed to the composition of claim 1. The composition is not obvious. The results of the second Gande

Declaration support this by showing unexpected results. The present invention is aimed at melt blended wettable polyolefin fibers useful for example in diapers and other disposable articles, second paragraph of page 1 of the disclosure.

The select compounds of the present invention provide for unexpected wettability results.

Further, Applicants again point out the results of the first Gande Declaration filed October 26, 2006. The LAC of present UNITHOX 420 is compared to UNITHOX 480 and UNITHOX 750 in polypropylene nonwoven fabrics. The fabric with 3% UNITHOX 420 has a LAC of 450 compared to 280 and 150 for UNITHOX 480 and 750, respectively.

Thus, in total, results are obtained for UNITHOX 420 compared to three other ethoxylated alcohols not of the present claims. UNITHOX 420 is superior in providing polypropylene with liquid absorption characteristics.

These results are unexpected and could not have been predicted from any combination of Mor, Patel and the UNILIN and UNITHOX data sheets.

Conclusion

1) Applicants submit that the disclosures of Mor and Patel are aimed at disparate arts and are not properly combined.

2) Applicants submit that those skilled in the art could not have arrived at the present invention from the combined disclosures of Mor and Patel.

3) The select compounds of the present invention display unexpected wettability results in a polyolefin fabric.

In view of these remarks and the first and second Gande Declarations, Applicants submit that the present 35 USC 103(a) rejections are addressed and are overcome.

Applicants submit that the present claims are in condition for allowance and respectfully request that they be found allowable.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'T. Stevenson', with a long horizontal flourish extending to the right.

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